

In the Claims:

1. (Original) A driver comprising switching circuitry referenced to a voltage level and configured to provide a drive signal for a switch referenced to another voltage level and subject to a control voltage limit.

2. (Original) The driver as recited in Claim 1 wherein said switching circuitry is referenced to a ground potential and said switch is referenced to about five volts.

3. (Original) The driver as recited in Claim 1 wherein said switch is a metal oxide semiconductor field effect transistor (MOSFET) referenced to said another voltage, said switching circuitry configured to provide a gate drive signal for said switch within a gate voltage limit thereof.

4. (Original) The driver as recited in Claim 1 wherein said switching circuitry comprises a plurality of driver switches couplable to ground and referenced to a ground potential and said switch is couplable to a source of electrical power and referenced to said another voltage level provided therefrom, ones of said plurality of driver switches being couplable to said ground, said source of electrical power and a bias voltage source for providing a bias voltage, ones of said

plurality of driver switches configured to cooperate to provide said drive signal referenced to said another voltage and within said control voltage limit of said switch.

5. (Original) The driver as recited in Claim 1 wherein said switching circuitry comprises at least one driver switch configured to enable a mode of operation wherein said drive signal for said switch is referenced to said voltage level.

6. (Original) For use with a power converter couplable to a source of electrical power adapted to provide an input voltage thereto, said power converter including a power train having a switch referenced to said input voltage and subject to a control voltage limit, a driver, comprising:  
switching circuitry referenced to a voltage level different from said input voltage and configured to provide a drive signal for said switch within said control voltage limit of said switch.

7. (Original) The driver as recited in Claim 6 wherein said input voltage is about five volts and said switching circuitry is referenced to a ground potential.

8. (Original) The driver as recited in Claim 6 wherein said switch is a metal oxide semiconductor field effect transistor (MOSFET) referenced to said input voltage, said switching circuitry configured to provide a gate drive signal for said switch within a gate voltage limit thereof.

9. (Original) The driver as recited in Claim 6 wherein said switching circuitry comprises a plurality of driver switches couplable to ground, ones of said plurality of driver switches being couplable to said ground, said source of electrical power and a bias voltage source for providing a bias voltage, ones of said plurality of driver switches configured to cooperate to provide said drive signal referenced to said input voltage and within said control voltage limit of said switch.

10. (Original) The driver as recited in Claim 6 wherein said switching circuitry comprises at least one driver switch configured to enable a mode of operation wherein said drive signal for said switch is referenced to said voltage level.

11. (Original) For use with a power converter couplable to a source of electrical power adapted to provide an input voltage thereto, a method of driving a switch of said power converter referenced to said input voltage and subject to a control voltage limit, comprising:

providing a drive signal for said switch within said control voltage limit of said switch with switching circuitry referenced from a voltage level different from said input voltage.

12. (Original) The method as recited in Claim 11 wherein said input voltage is about five volts and said switching circuitry is referenced to a ground potential.

13. (Original) The method as recited in Claim 11 wherein said switch is a metal oxide semiconductor field effect transistor (MOSFET) referenced to said input voltage, said switching circuitry providing a gate drive signal for said switch within a gate voltage limit thereof.

14. (Original) The method as recited in Claim 11 wherein said switching circuitry comprises a plurality of driver switches couplable to ground, ones of said plurality of driver switches being couplable to said ground, said source of electrical power and a bias voltage source for providing a bias voltage, ones of said plurality of driver switches cooperating to provide said drive signal referenced to said input voltage and within said control voltage limit of said switch.

15. (Original) The method as recited in Claim 11 further comprising enabling a mode of operation wherein said drive signal for said switch is referenced to said voltage level.

16. (Original) A power converter couplable to a source of electrical power adapted to provide an input voltage thereto, comprising:

a power train including a switch, referenced to said input voltage and subject to a control voltage limit, configured to conduct for a duty cycle and provide a regulated output characteristic at an output of said power converter;

a controller configured to provide a signal to control said duty cycle of said switch; and

a driver including switching circuitry referenced to a voltage level different from said input voltage and configured to provide a drive signal for said switch within said control voltage limit as a function of said signal from said controller.

17. (Original) The power converter as recited in Claim 16 wherein said controller is configured to provide a complement of said signal to control said duty cycle of said switch, said driver being configured to provide said drive signal for said switch within said control voltage limit as a function of said complement of said signal from said controller.

18. (Original) The power converter as recited in Claim 16 wherein said switch is a metal oxide semiconductor field effect transistor (MOSFET) referenced to said input voltage, said switching circuitry configured to provide a gate drive signal for said switch within a gate voltage limit thereof.

19. (Original) The power converter as recited in Claim 16 wherein said switching circuitry comprises a plurality of driver switches couplable to ground, ones of said plurality of driver switches being couplable to said ground, said source of electrical power and a bias voltage source for providing a bias voltage, ones of said plurality of driver switches configured to cooperate to provide said drive signal referenced to said input voltage and within said control voltage limit of said switch.

20. (Original) The power converter as recited in Claim 16 wherein said switching circuitry comprises at least one driver switch configured to enable a mode of operation wherein said drive signal for said switch is referenced to said voltage level.

21. (New) The driver as recited in Claim 1 wherein a voltage of said drive signal is less than a difference between said voltage level and said another voltage level.

22. (New) The driver as recited in Claim 6 wherein a voltage of said drive signal is less than said input voltage.

23. (New) The method as recited in Claim 11 wherein a voltage of said drive signal is less than said input voltage.

24. (New) The power converter as recited in Claim 16 wherein a voltage of said drive signal is less than said input voltage.